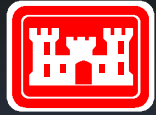




# Seattle District Briefing

**COL Ralph H. Graves**  
**District Commander**



US Army Corps  
of Engineers  
Seattle District

# The Corps and the Nation's Marine Transportation System



- **Earliest Congressional authorization for navigation - 1824**
- **Focus today is on maintaining and protecting this system**
- **Invested in an active research program to accomplish this**
- **Seeking a balance between environmental and economic needs in areas such as managing dredged material**





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# The Corps and PIANC



**The United States – Member of PIANC by Act of Congress in 1902**

- **Assistant Secretary of the Army is Chairman of U.S. Section**
- **Army's Director of Civil Works serves as Section President**

**PIANC is a vital partner in Corps research**

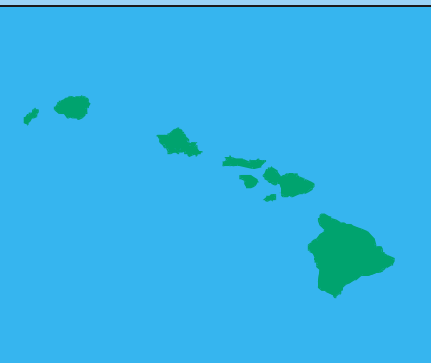
- **Expertise of US members**
- **Helping us learn from others' experiences**

**PIANC has played a major role in showing that dredged material can be put to good use**



# Navigation System

- 238 lock chambers at 192 sites
- 25,000 commercially navigable miles (12,000 inland)
- 627 shallow draft projects, 299 deep draft draft projects





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# Corps of Engineers

## *Navigation Facts*



States served by Corps ports & waterways: **41**

Commercial navigation channels operated/maintained: **10,790 miles**

Navigation lock chambers owned/operated: **276 at 230 sites**

Oldest lock opened: **1839**

Highest lift: **John Day Lock, Columbia River, OR, 110 ft.**

Most cargo moved (1999): **Ohio River Lock #52, 95.1 million tons**

Most openings (1999): **Marmet Lock, Kanawha River, WV, 31,691**

Most pleasure craft lockages (1998): **Hiram M. Chittenden Locks, Seattle, 50,073**

Coastal & inland harbors maintained by Corps: **926**

Harbors handling over 250,000 tons of cargo: **198 - 120 coastal, 53 Great Lakes, and 25 inland**



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# Corps of Engineers

## *Navigation Facts*



Tonnage handled by U.S. ports and waterways (1999): **2,322.6 million**

Imports: 860.8 million tons – Exports: **400 million tons**

*Domestic: 1,061.8 million tons*

Major commodities: **food & farm products - 287.9 million tons,**  
**crude oil - 533.4 million tons, petroleum products - 445.7 million tons,**  
**coal - 281.5 million tons**

Port handling most cargo: **Port of South Louisiana, 214.2 million tons**

Value of foreign commerce handled at ports (1999): **\$672.6 billion**

Jobs generated by waterborne commerce at ports (1996): **13.1 million**

Federal taxes generated by waterborne commerce at ports (1996):  
**\$146.4 billion**

Material dredged per year (2000): **285 million cubic yards**

Dredges & other vessels owned/operated: **1,100**



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# Seattle District Navigation

## *Lake Washington Ship Canal*



**Small lock closed from Feb. 17 through April 25 to replace the lock gates**

- **Scheduled work replaces the original guard gates, which were installed during the lock's construction in the early 1910s**
- **\$2 million project includes new gate construction by the Puget Sound Naval Shipyard and preparation and installation work by S.L. Larson Construction, Inc. of Lynnwood, Wash**
- **Irish Foundry fabricated the castings associated with each set of gates**





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# Seattle District Navigation

## *Lake Washington Ship Canal*



### **Pintle bushings at the center gates worn excessively**

- **Gates have been taken out of service**
- **Gates are not due for refurbishment for another ten years**
- **Recommended plan – remove gates to replace pintle, pintle bushing and shoe on each gate**
- **With center gate out of service, full lock must be used**
- **Full lock uses more water – water supply will become more critical at the beginning of July**





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# Seattle District Navigation

## *Lake Washington Ship Canal*



**Began raising Lake Washington from winter level on Feb. 3**

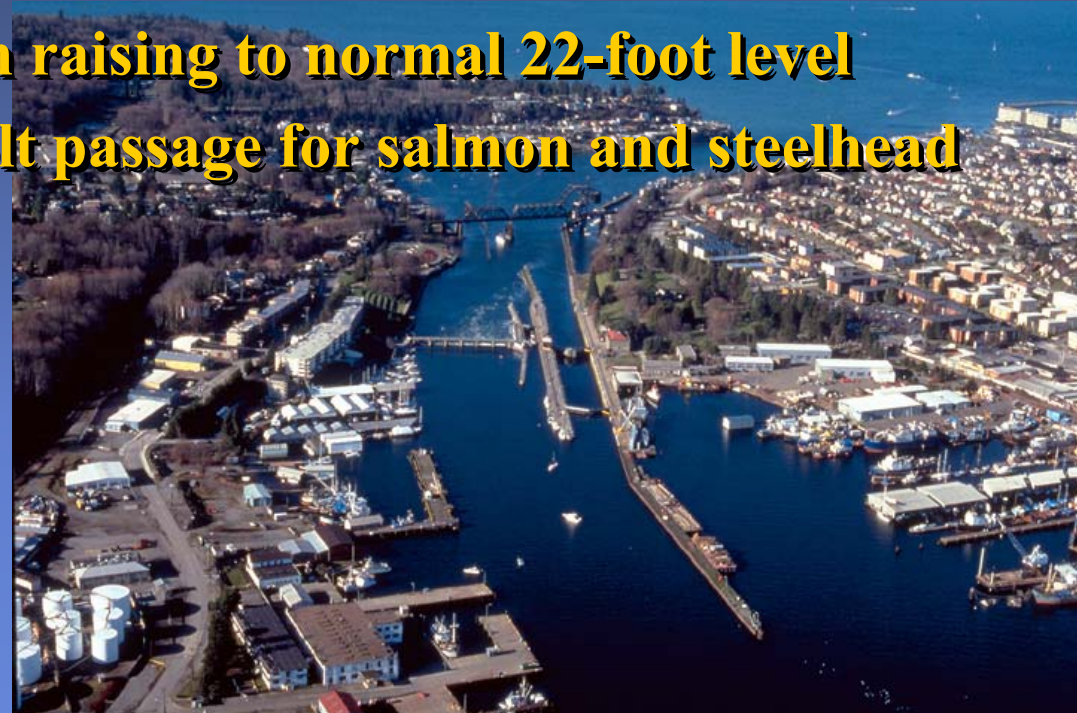
- **Two weeks earlier than normal**
- **Reduced spring flow from Cedar River could diminish refill**
- **No problem anticipated with raising to normal 22-foot level**
- **Early refill will provide smolt passage for salmon and steelhead**
- **Lake levels:**

**Feb. 3 – 20 feet**

**Mid-Feb – 20.4 feet**

**End of April – 21.85**

**End of May – 21.95**





# Seattle District Navigation

## *Grays Harbor*



### **South Jetty project at Westport completed**

- **Dredged material placed and planted with native grass**
- **Stakeholder meeting in early March to discuss future actions**
- **Study report is expected within next couple months**

### **North Jetty rehabilitation at Ocean Shores completed**

### **WFDW issued a 5-year Advisory HPR (Jan. 17, 2003)**

- **Placement of oyster shell in Grays Harbor as mitigation for juvenile Dungeness crab**
- **Only for increment of O&M dredging impacts to Grays Harbor Navigation Improvement Project**



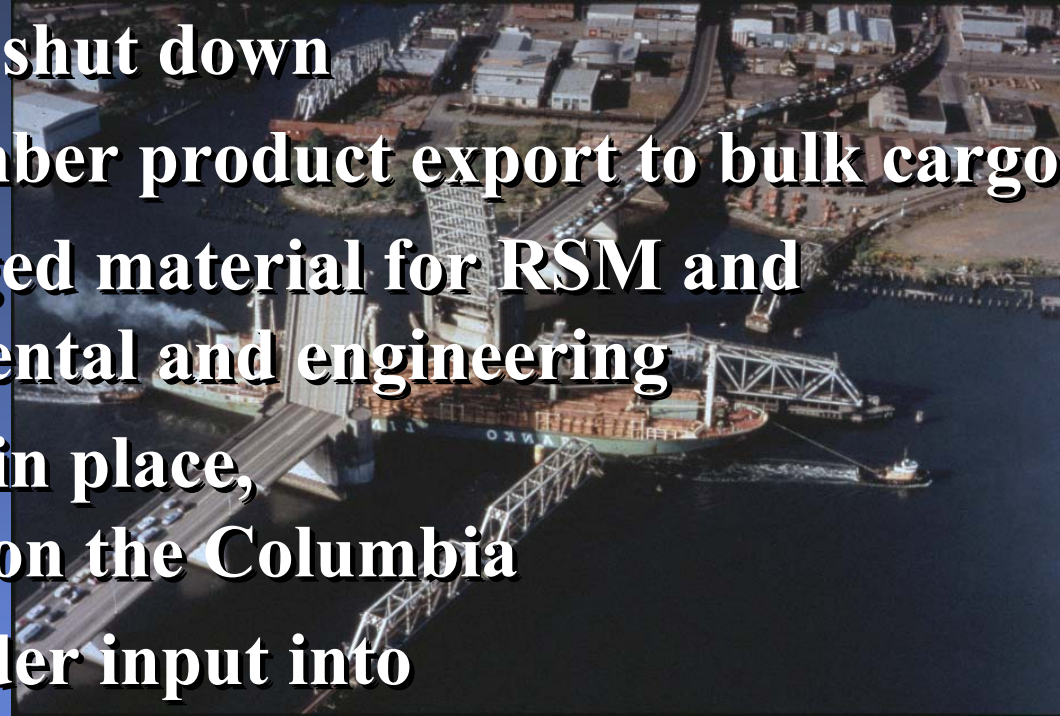
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# Seattle District Navigation

## *Grays Harbor*



- **Aluminum importing as a result of the Columbia River production smelters being shut down**
- **Conversion from wood/timber product export to bulk cargo**
- **Near total use of the dredged material for RSM and beneficial uses - environmental and engineering**
- **RSET documents already in place, compared to the situation on the Columbia**
- **Large amount of stakeholder input into O&M process (Port and Coastal Communities)**





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# Seattle District Navigation

## *Puget Sound*



- Mostly composed of naturally deep berthing or channels requiring little maintenance:

**Seattle**

**Tacoma**

**Everett**

**Olympia**

- Very active debris collection program – one of three in the nation, along with San Francisco and New York
- Ports have tended to create niches and reduce inter-port competition





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# Seattle District Navigation

## *Dredged Material Management Program*



- **Puget Sound Dredged Disposal Analysis (PSDDA) is now Dredged Material Management Program (DMMP)**
- **Names changed as interagency management focus expanded outside of Puget Sound: 1995 to include Grays Harbor and Willapa Bay – 1998 to include the lower Columbia River**
- **Interagency program serves as a model for the Regional Sediment Evaluation Team (RSET) and the Regional Sediment Management (REM)**
- **Continued success over 15 years due to resource sharing, adaptive management and implementation flexibility**



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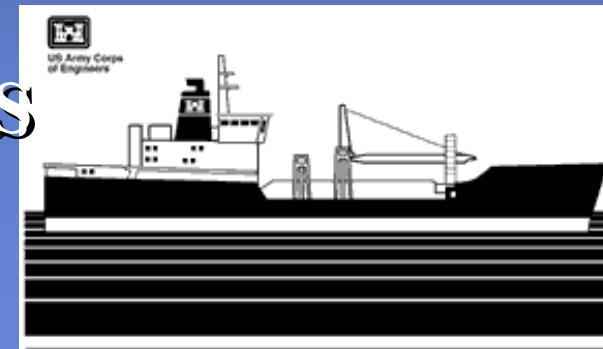
# Seattle District Navigation

## *Dredged Material Management Program*



### Seattle District Coordination

- Semi-annual meetings to discuss O&M activities
- Beneficial Uses Work Group meetings
- Monthly meetings of DMMO on dredging issues
- Sediment management annual review meetings
- Meeting with Coastal Dungeness Crab Advisory Group at WDFW
- ESA concurrences w/ USFWS and NMFS
- Coordination with Portland District





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# Seattle District Navigation

## *Semi-Annual Dredging Conferences*



- Meetings include resource managers from other agencies, such as USFWS, NMFS and WDFS
- Review dredging over the past six months, lessons learned, studies and potential species listings
- Discuss dredging issues on Tribal lands
- Identify new members and form working groups
- Enabled Seattle District to receive concurrence letters faster by having resource agencies present
- Results in district staff working closely with USFWS for defining work windows for bull trout



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# Seattle District Navigation

## *Dredged Material Management Program*



### Seattle District dredged material reuse in the Puget Sound

- 1993 Eagle Harbor Superfund capping: 277,000 cy clean sands from Everett Harbor clamshell maintenance dredging
- 1997, 1998 & 1999 Tulalip Landfill Superfund capping: 541,000 cy clean sands from Everett Harbor pipeline maintenance dredging
- 2000 Bellingham MTCA capping: 42,500 cy of clean sands from Swinomish Channel clamshell maintenance and 10,600 cy from Squalicum





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# Seattle District Navigation *Regulatory*



- **Section 10 of the Rivers and Harbors Act of 1899**
  - **To protect and preserve the navigability of navigable waters**
  - **Requires you obtain a permit from the Regulatory Branch for any structure or work in a navigable water of the U.S.**
- **Activities regulated under Section 10 of the Rivers and Harbors Act include**

<b>buoys</b>	<b>floats</b>	<b>piers</b>	<b>bulkheads</b>	<b>breakwaters</b>
<b>Marinas</b>	<b>dredging</b>	<b>fill</b>	<b>pilings</b>	<b>boat lifts</b>
<b>boat ramps</b>	<b>marine railways</b>	<b>disposal of dredged material</b>		



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# Seattle District Navigation

## *Regulatory*



**Puget Sound**

**Lake Sammamish**

**Lake Union**

**Lake Washington**

**Cedar River**

**Duwamish River**

**Snohomish River**

**Snoqualmie River**

**Stillaguamish River**





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# Seattle District Navigation

## *Regulatory*



- **Significantly reduced backlog of biological evaluations awaiting review internally**
- **Use of the original programmatic biological evaluations for “actions not likely to adversely affect” has been very effective**
- **Public notices for Regional General Permit for ferry and port maintenance are expected to go out to public at the end of February**
- **Legislation to continue outside funding, as is currently in place with Ports of Seattle and Tacoma**



# **Seattle District Navigation**

## ***Puget Sound Nearshore GI***



- **Five-year, \$12M study co-sponsored by Washington State Department of Fish and Wildlife and a local coalition**
- **Evaluate fundamental causes of rapid, wide-spread declines in many species abundance and diversity within Puget Sound**
- **Develop action plans to restore nearshore ecosystems**
- **Conduct outreach with local communities to develop restoration sites using sound science**
- **Recommend restoration plan to Congress**
- **Project web site: [www.pugetsoundnearshore.org](http://www.pugetsoundnearshore.org)**



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# Seattle District Navigation *Security*



**Questions when assessing threats:**

Who are the aggressors?

What weapons might they use?

What are we protecting: people, building, function, information?

How much protection will be provided?

Budget, function, availability of guards?



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# Seattle District Navigation *Security*



- Immediately following the terrorist attack of September 11, the Corps began risk analyses of its operating projects
- Seattle District identified some security issues at LWSC and is implementing security upgrades
- Work is expected to be completed by the end of the calendar year
- Security for port infrastructure is not a Corps' responsibility, but belongs with the ports themselves
- The Coast Guard is also responsible



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# Seattle District Navigation

## *Pacific NW Navigation Controversies*

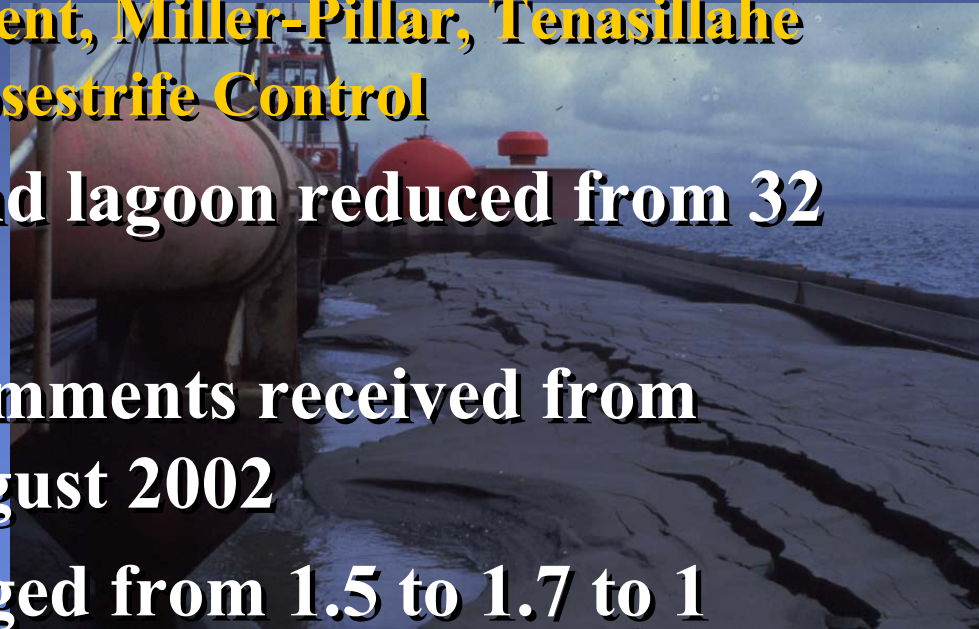


### Lower Columbia Deepening

- Five additional ecosystem restoration features were added to the project as a result of the ESA consultation.

**Original: Shillapoo Lake, Tide Box Retrofits, Lord-Walker Hump-Fisher. Added: Lois Island Embayment, Miller-Pillar, Tenasillahe Phased, Bachelor Slough, Purple Loosestrife Control**

- Mitigation in the Martin Island lagoon reduced from 32 acres to 16 acres
- A reduction in costs due to comments received from technical panel convened in August 2002
- The benefit to cost ratio changed from 1.5 to 1.7 to 1





# **Seattle District Navigation**

## ***Pacific NW Navigation Controversies***



### **Lower Columbia Deepening Schedule**

**Public Review**                      **Jan 31 – March 3**

**State Decisions**                      **March 7**

**Record of Decision**                      **March 28**

**Execute the PCA**                      **April 11**



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# Seattle District Navigation

## *Pacific NW Navigation Controversies*



### Snake River

- Walla Walla District planned routine maintenance dredging to complete the Dredged Material Management Plan and EIS in September 2002
- Lawsuit filed on Nov. 4, 2002.  
Court granted the plaintiff's motion for preliminary injunction
- The Corps terminated the dredging contract for the convenience of the government on Dec. 27





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# Seattle District Navigation

## *Pacific NW Navigation Controversies*



### ***Snake River - continued***

- **The Corps is committed to operating the Snake River system as directed by Congress, while complying with environmental law and our trust and treaty obligations to federally recognized tribes**
- **No navigation maintenance dredging done since winter 1998-99. The Corps usually dredges every two to three years**
- **Impacts to commercial navigation could occur**
- **Navigational channel will continue to lose depth**





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# Seattle District Navigation

## *National Navigation Challenges*



### **Maintaining facilities**

- **Infrastructure aging - facilities exceeding design life**
- **Constrained budgets cause critical backlog to grow**
- **O&M activities related to ESA and cultural resources**
- **Cleanup requirements**
- **Sedimentation concerns on the Missouri River**
- **Non-routine maintenance continues to increase**
- **Systematic upgrades of this nearly 100-year old LWSC**
- **Aging dams require improvements for fish passage**





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# Seattle District Navigation

## *New Approach to Water Resources*



**Corps Modernization: meeting water resources needs in ways that reflect our national values**

- **Multi-purpose, multi-objective, environmentally sustainable watershed approach**
- **Federal, state, local & non-government partnership**
- **Early and continuous involvement by all stakeholders**
- **Solutions to localized problems undertaken in context of overall watershed objectives and national policy**
- **Operating projects monitored and adaptively managed**



# Seattle District U. S. Army Corps of Engineers

Colonel Ralph Graves  
Commander



*In Support of the Army and the Nation*